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1812 15

10/30/91

☒ This application has been examined ☒ Responsive to communication filed on 5-1-91 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.
2. ☐ Notice re Patent Drawing, PTO-948.
3. ☐ Notice of Art Cited by Applicant, PTO-1449.
4. ☐ Notice of Informal Patent Application, Form PTO-152
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____.

Part II SUMMARY OF ACTION

1. ☒ Claims 1 to 14, 24 to 34, and 38 to 57 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. ☒ Claims 15 to 23 and 35 to 37 have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 1 to 14, 24 to 34, and 38 to 57 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.

13. ☐ Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

PTOL-326 (Rev.9-89)

Claims 1 to 14, 24 to 34, and 38 to 57 are pending in the instant application with claims 15 to 23 and 35 to 37 having been canceled.

Claims 4 to 9, 38, 39, 41, and 42 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are still dependant upon a claim drawn to a cloned DNA sequence encoding a polypeptide. The DNA sequences that are the subject of these claims do not appear to encode a polypeptide and certainly do not encode the same polypeptide. It is still unclear as to how these sequences relate to the parental sequence from which they were derived. Claims 38, 39, 41, and 42 are indefinite in claiming "serotypic variants thereof" which are functionally undefined.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same

person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 1 to 14, 24 to 34, and 38 to 57 are rejected under 35 U.S.C. § 103 as being unpatentable over the Petrovich et.al. (1R) publication in view of the Hauptmann et.al. (1S) and Krust et.al. (1T) publications. These claims are drawn to a cloned DNA sequence encoding a retinoic acid receptor protein, fragments thereof, and a process of identifying homologous sequences. The Petrovich reference describes a cloned DNA sequence encoding a retinoic acid receptor protein which is 90% homologous to the claimed sequence. The Hauptmann reference shows that the use of a cloned DNA sequence encoding a protein of a specific function to clone DNA sequences encoding functionally related proteins was a method that was old and routine in the art at the time the instant invention was made. To use a DNA sequence encoding a retinoic acid receptor protein like the one described in the

Petrovich reference to clone a DNA sequence encoding a related retinoic acid receptor protein by using a method like that exemplified here by the Hauptmann reference to allow for the production of the encoded product by recombinant DNA methods was obvious to one of ordinary skill in molecular biology at the time the instant invention was made. Additionally, the Krust reference identifies the functionally conserved regions common to steroid related receptor proteins and of equal importance the functionally non-conserved regions that one of ordinary skill would recognize as having utility in distinguishing between DNA sequences encoding related receptor proteins having different ligand specificities.

Any inquiry concerning this communication should be directed to John D. Ulm at telephone number (703) 308-4008.

DAVID L. LACEY
SUPERVISOR PRIMARY EXAMINER
ART UNIT ~~189A~~ 1812
10/28/91